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IS 11300 (2011): Spices and Condiments - Caraway Seeds [FAD
9: Spices and Condiments]



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भारतीय मानक
मिर्च एवं मसाले — शिया जीरा — विशिष्टि
(पहला पुनरीक्षण)

Indian Standard
SPICES AND CONDIMENTS — CARAWAY SEEDS —
SPECIFICATION
(*First Revision*)

ICS 67.220.10

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BUREAU OF INDIAN STANDARDS
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FOREWORD

This Indian Standard (First Revision) was adopted by the Bureau of Indian Standards, after the draft finalized by the Spices and Condiments Sectional Committee had been approved by the Food and Agriculture Division Council.

Caraway (*Carum Carvi* Linn. Apiaceae) (*umbelliferae*) is called in Hindi as *SHIA ZIRA*. It is grown largely in Netherlands and Morocco. It is cultivated to some extent throughout northern central Europe and India (in the north Himalayan regions; cultivated in the plains as a cold season crop and in the hills of Kashmir, Kumaon, Garhwal and Chamba at altitudes of 3 000 to 4 000 m as summer crop).

Caraway seed (*Carum Carvi*) is different from Black Caraway *Carum bulbocastanum*, Koch (Apiaceae), which in Hindi is known as *KALA ZIRA*. Black Caraway is not normally cultivated and is found as wild growth largely in Afghanistan, Iran and India (Kashmir — 2 000 to 3 650 m, Garhwal and Kumaon). Both types of Caraway are very similar in appearance. However, caraway seed contains slightly higher amount of volatile oil. Differences in the composition of oil from Caraway seed and Black Caraway are given in Annex A for identification.

This standard was originally published in 1985. In this revision, the requirements have been updated to align with the standards for caraway seeds laid down under the *Prevention of Food Adulteration Rules*, 1955 and also with the ISO Standard on the subject, ISO 5561 : 1990 'Black caraway and blond caraway (*Carum Carvi Linnaeus*), whole — Specification'.

Due consideration has also been given to the *Prevention of Food Adulteration Rules*, 1955 and *Standard of Weights and Measures (Packaged Commodities) Rules*, 1977. However, this standard is subject to restrictions imposed under these rules, wherever applicable.

For the purpose of deciding whether a particular requirement of this standard is complied with, the final value, observed or calculated, expressing the result of a test or analysis, shall be rounded off in accordance with IS 2 : 1960 'Rules for rounding off numerical values (*revised*)'. The number of significant places retained in the rounded off value should be the same as that of the specified value in this standard.

Indian Standard

SPICES AND CONDIMENTS — CARAWAY SEEDS — SPECIFICATION

(*First Revision*)

1 SCOPE

This standard prescribes the requirements and methods of sampling and test for caraway seeds (*Carum Carvi* Linn.).

2 REFERENCES

The following standards contain provisions which through reference in this text, constitute provisions of this standard. At the time of publication, the editions indicated were valid. All standards are subject to revision and parties to agreements based on this standard are encouraged to investigate the possibility of applying the most recent editions of the standards indicated below:

<i>IS No.</i>	<i>Title</i>
460 (Part 1) : 1985	Specification for test sieves: Part 1 Wire cloth test sieves (<i>third revision</i>)
1070 : 1992	Reagent grade water (<i>third revision</i>)
1797 : 1985	Methods of test for spices and condiments (<i>second revision</i>)
5887 (Part 3) : 1999/ISO	Methods for detection of bacteria responsible for food poisoning: Part 3
6579 : 1993	General guidance on methods for the detection of <i>Salmonella</i> (<i>second revision</i>)
13145 : 1993	Spices and condiments — Methods of sampling (<i>first revision</i>)
14216 : 1994	Code for hygienic conditions for spices and condiments processing units

3 DESCRIPTION

Caraway seed is the carpel into which nearly mature fruits of *Carum Carvi* Linn. split after drying and on threshing. The carpel is 4 mm × 6 mm long falcate. Longitudinally they bear fine pale to dark yellow ribs, the surface between the ribs being dark brown.

4 REQUIREMENT**4.1 Odour and Taste**

The flavour shall be characteristic, aromatic and not musty. The taste should be sharp with sweet pleasing aroma.

4.2 Freedom from Moulds, Insects, etc

The caraway seeds shall be free from live insects and moulds, and shall be practically free from dead insects, insect fragments and rodent contamination visible to the naked eye (corrected, if necessary, for abnormal vision) or with such magnification as may be necessary in any particular case. If the magnification exceeds × 10, this fact shall be stated in the test report. The proportion of insect damaged matter shall not exceed 1 percent (*m/m*).

4.3 Extraneous Matter

In caraway seeds, the proportion of extraneous matter including grass seeds and other non-caraway seeds when determined by the method specified in 4 of IS 1797, shall not exceed 1.0 percent (*m/m*).

4.4 The caraway seeds shall also conform to the requirements given in Table 1.

4.5 The caraway seeds shall be manufactured and packed under hygienic conditions (*see* IS 14216).

4.6 Pesticide residues and metallic contaminants in the product shall not exceed the limits as prescribed in the *Prevention of Food Adulteration Act, 1954* and the Rules made thereunder.

5 PACKING AND MARKING**5.1 Packing**

Caraway seeds shall be packed in clean, sound and dry container made of metal, glass, food grade polymers, wood or jute bags. The wooden boxes or jute bags shall be suitably lined with moisture proof lining which does not impart any foreign smell to the product. The packing material shall be free from fungal or insect infestation and should not impart any foreign smell. Each container shall be securely closed and sealed.

5.2 Marking

The following particulars shall be legibly and indelibly marked or labelled on each container of caraway seeds, whole and ground:

- a) Name of the material, trade-name or brand name, if any;
- b) Name and address of the manufacturer/packer;
- c) Batch or Code number;
- d) Net mass;
- e) Date of packing;
- f) Year of harvest;
- g) Best before..... (month/year); and
- h) Any other marking as required under the *Standards of Weights and Measures (Packaged Commodities) Rules, 1977* and the *Prevention of Food Adulteration Rules, 1955*.

6 SAMPLING

6.1 Representative samples of the material shall be

drawn and tested for conformity to this standard as prescribed in IS 13145.

6.2 The sample shall be prepared as prescribed in **5** of IS 1797 except that the particle size should be about 500 µm IS sieve [see IS 460 (Part 1)].

7 METHODS OF TEST

The samples of caraway seeds shall be tested for ascertaining conformity of the material to the requirements in accordance with the relevant clauses given in col 4 of Table 1.

8 QUALITY OF REAGENTS

Unless specified otherwise, pure chemicals and distilled water (see IS 1070) shall be employed in tests.

NOTE — 'Pure chemicals' shall mean chemicals that do not contain impurities which effect the results of analysis.

Table 1 Requirements for Caraway Seeds
(Clauses 4.4 and 7)

SI No.	Characteristics	Requirements	Method of Test, Ref to
(1)	(2)	(3)	(4)
i)	Moisture, percent by mass, <i>Max</i>	10	9 of IS 1797
ii)	Total ash on dry mass, percent by mass, <i>Max</i>	8	6 of IS 1797
iii)	Acid insoluble ash on dry basis, percent by mass, <i>Max</i>	1.5	8 of IS 1797
iv)	Volatile oil content on dry basis, ml/100g, <i>Min</i>	2.5	15 of IS 1797
v)	<i>Salmonella</i> , in 25 g	Absent	IS 5887 (Part 3)

ANNEX A

(Foreword)

COMPOSITION OF OILS FROM CARAWAY SEED AND BLACK CARAWAY

<i>Caraway Seed</i> (<i>Carum Carvi</i> Linn.)		<i>Black Caraway</i> (<i>Carum Bulbocastanum</i>)	
Constituent	Percent	Constituent	Percent
Carvone	52	Aldehyde	20
<i>d</i> -limonene	44	Terpenes	80
Trace compounds (dihydrocarvone, dihydrocarveol, derillyl alcohol, etc)	4		

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Amendments Issued Since Publication

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